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INSIDE:

Superintendent Argenbright Supports Pledge of Allegiance

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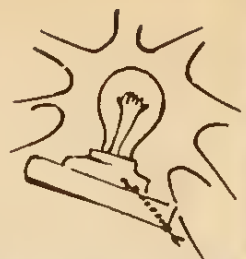
Bright Ideas from Around Montana



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Spotlight on Elementary Education

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PLEASE RETURN

Montana Schools

OFFICE OF PUBLIC INSTRUCTION
Ed Argenbright, Superintendent

FALL 1988 VOLUME 32, NO. 1

New Programs for Montana Schools

The Office of Public Instruction has implemented two new programs which could affect every school district in Montana. Ed Bergquist (left) is a special assistant working in the area of at-risk students, and Terry Teichrow (right) is a specialist in programs for homeless children. These staff members and Jim Van Meter, Project Director, Helena Alternative High School, have submitted articles on this growing population of students.

Special Programs for Homeless Youth and Children

by Terry Teichrow
Homeless Children and Youth Specialist
444-2036

The Stewart B. McKinney Homeless Assistance Act deals in part with homeless children and youth. It provides funds to states for the purpose of addressing the educational needs of homeless children. Initial funding is provided for the following purposes:

1. To establish an office to coordinate the education of homeless children and youth.
2. To develop and carry out a state plan for the education of homeless children and youth.
3. To carry out other activities to ensure that all homeless children and youth in Montana have access to a free and appropriate public education.
4. To collect data for the purposes of federal reports.

The short-term and long-range goals of the homeless program are to gather statistical data in regard to the number of homeless children in the state of Montana. Once this information has been gathered and analyzed, we will begin to write a state plan which emphasizes needs assessment from school districts, public and private social service associations, welfare, Aid to Dependent Children, foster care, etc.

After the state plan has been completed, we will try to provide advocacy services for educational programs for Montana's homeless kids on an ongoing basis.

We would welcome any comments or suggestions on how to make the program as effective as possible.

•••

At-Risk Students in Montana Schools

by Ed Bergquist
Special Assistant to the Superintendent
444-4397

The term "at-risk student" is relatively new, but the phenomena of students being at risk is as old as schools themselves. Only in recent times has there been a concerted effort to identify students who are at risk and then to follow that identification with a problem solving effort.

How big is the at-risk problem? Speaking at the *Youth 2,000 Conference* in Bozeman, Joy Dryfoos, a Columbia University associate professor and Carnegie Corporation researcher, stated that out of four students nationwide, one is critically at risk, one is seriously at risk, one is a "resilient" child able to oversome at-risk traits, and one is without at-risk characteristics. Ms. Dryfoos added that those statistics probably did not reflect the true numbers for Montana.

Statistics concerning Montana's at-risk population are sparse and open to question. The minimal at-risk population would be those students who have dropped out, but that statistic is hotly debated among Montana educators. Some say that the 17 percent figure is too high, others argue just as vigorously that 17 percent reflects only a portion of those who have left school between kindergarten and grade twelve. Office of Public Instruction contact with over 30 western and central Montana schools indicates a wide range of **estimates** within schools concerning their at-risk populations. Most administrators and counselors contacted estimated their population of at-risk students to be somewhere between 15 and 30 percent of the overall student population. Extreme estimates were for populations approaching 50 percent on the high side and 5 percent on the low side.

Just as the percentage estimates vary from school to school, so do the efforts to accommodate at-risk students educationally. It appears as though larger schools have recognized the problems of their at-risk students and have begun remedial actions. Responses from medium and small-schools vary from no special effort being made to well-defined K-12 programs.

continued next page...

FROM THE SUPERINTENDENT

Dear Montana Educators:

It seems that, although I have four more months as Montana's State Superintendent of Public Instruction, the "lasts" have already set in . . . my last Chief State School Officers summer institute, my last legislative budget proposal, and now my last "Welcome Back" letter to Montana educators.

One of the items on my "mostly undone" agenda that I'm not willing to give up on yet is my desire to help Montana teachers rekindle a patriotic American spirit in our students. Civic pride and commitment are critical to our country's future, and they must be carried on by our children and their children.

I was very pleased to receive a copy of a resolution passed by the Montana American Legion Convention which reads as follows:

Reinstitution of Pledge of Allegiance at start of classroom day in public schools

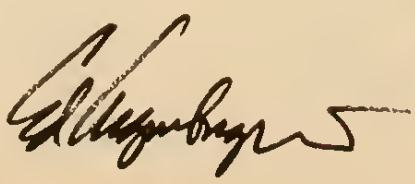
WHEREAS, The erosion of Americanism has been observed in Public Schools, as the Pledge of Allegiance is neglected or omitted, and

WHEREAS, The American Legion is a bulwark in the observance of Americanism and patriotism, therefore be it

RESOLVED, by the American Legion, Oepartment of Montana in Convention assembled in Bozeman, Montana, July 8, 9 and 10, 1988, that the State Department of Public Instruction direct: That the Pledge of Allegiance be given at the start of each classroom day in public schools.

While I cannot and would not **direct** schools to begin the day with the Pledge of Allegiance, I have asked school districts to consider the resolution very seriously. I hope the Pledge will be adopted by each teacher and each district in Montana.

I feel very strongly that we must begin to re-educate our students in those American values of patriotism and love of country. What better way than to begin each day thinking about America?



—Ed Argenbright
State Superintendent

The at-risk problem has impaled Montana schools on the horns of a dilemma: perform more functions, but do it with fewer resources. At-risk students and their problems are not going to disappear, dealing with those problems will demand innovative and imaginative solutions. Our monolithic school system has been challenged to take risks, to strike out into unfamiliar territory. How we respond to this challenge is of great importance to all Montanans.

Are *At Risk* Youth Really So Different?

by Jim Van Meter
Project Director
Helena Alternative High School

Working with "at risk" youth requires no special formula or magic wand. When we really look at it, all of our students are "at risk." Adolescence is a fragile time, and any student from any family can fall over the edge. Instead of looking at what we can do for "at risk" kids, perhaps we should be asking what our school programs need to be for all kids.

First of all, we need to recognize that most kids who will fall out of the system can be identified as early as the third grade. Incredible progress can be noted with these youngsters when they are placed with a teacher who has strong relationship skills, genuinely cares about the children, and is willing to use a positive problem solving approach to discipline. All children suffer identity and self-concept crises. A positive environment structured by positive, student-centered teachers will carry all but the ones most seriously damaged into adolescence.

But it doesn't end there. Adolescents also need a positively structured environment and an environment of clear responsibility and accountability. Egos are easily bruised and extremely fragile, but they cannot get stronger unless schools **expect** them to get stronger. Mistakes will be made which must be forgiven but not excused. Students need to be held accountable for their actions. Consequently, students must know what is expected, know that we will provide them with direction, and know that we genuinely care about them. Relationship skills that emphasize a problem solving approach should be required in the skill packet of any teacher.

Possessing the skills but not having the structure to utilize them frustrates a lot of public school teachers. The majority of us **want** to be positive; **want** to believe in our students and ourselves; **want** to feel productive and worthwhile. Unfortunately, our best intentions get lost in the shuffle and we end up presenting, disciplining, monitoring, grading, etc. We do darn little relating, and kids get lost and become labeled "at risk." That is a shame and perhaps unexcuseable because it doesn't have to happen . . . not if the **emphasis** is on the maintenance of a positive environment; not if teachers feel a part of a team; not if the school day is structured to encourage student-teacher relationships.

According to current research on at-risk students, the following criteria must be present in a program, or the students simply drop out again (Wehlage, Rutter, Turnbaugh, 1987):

1. **Face to face relationships** on a continuing basis are necessary if teachers are to communicate the sense of caring so necessary to many adolescents.
2. **Small size.** This is obviously difficult for larger schools. However, some creative structuring can be done to create teams of teachers and advisor/advisee relationships similar to a middle school concept.
3. **A teacher culture** in which teachers feel ownership of the program and accountable for success of the program as a whole.
4. **Individualized curriculum** and an active sense of program ownership by the students. Teaching teams and an active advisor/advisee program may help meet this need.
5. **Experiential learning.** Not all students need or want learning of this type..However, it should be available to those who do.

Adolescent students are "at risk" for many reasons, and schools cannot be expected to save all of them. My bet is, however, that any school that creates a positive environment, hires teachers who are student centered and possess strong relationship skills, creates a structure that emphasizes strong teacher-student relationships, and **expects** its students to grow—emotionally, socially, and academically—will have far fewer "at risk" kids and far less need for special (and expensive) alternative programs.

MONTANA TEACHER OF THE YEAR

Nomination Deadline *September 30*

Nominations are being accepted for the Montana Teacher of the Year, a program which each year honors the valuable contributions of a classroom teacher. The Teacher of the Year is an exemplary and articulate representative of Montana's outstanding educators and the state's candidate for the national program.

Nominations must be received by the Office of Public Instruction no later than September 30. To be eligible candidates must use the official (green) portfolio/questionnaire.

For more information, contact Edward Eschler at OPI (444-4433).

MONTANA SCHOOLS

Montana Schools is published quarterly (September, December, February, May) by the Office of Public Instruction, State Capitol, Helena, MT 59620. It is distributed to public schools and members of boards, associations, organizations and individuals interested in education in Montana.

Deadlines are six weeks before the first day of the publishing month (e.g., six weeks before September 1)

Ed Argenbright
State Superintendent of Public Instruction

Marilyn Miller
Executive Asst. to the Superintendent/Editor

Gail Hansen
Layout

Lori Clark
Typography

NEWS BRIEFS

DRUG-FREE SCHOOL RECOGNITION PROGRAM

The U.S. Department of Education has announced that it will again run the Drug-Free School Recognition Program. The purpose of this program is to recognize schools which have implemented a comprehensive drug-prevention and intervention program which has prevented or substantially reduced alcohol, tobacco, and other drug use among the student population and which have an ongoing plan to remain or become drug-free.

The three goals of the program are to:

—Focus national attention on drug-free schools in America;

—Demonstrate, by example, that drug-free schools can be achieved and maintained by communities which strive for them; and

—Offer to school systems models of success in creating and maintaining drug-free schools that others may emulate.

The Montana Office of Public Instruction will select four schools to submit for national consideration. For nomination materials and further information contact Spencer Sartorius, Drug-Free Schools, Office of Public Instruction, State Capitol, Helena 59620, (406) 444-4434.

All nominations must be received by the Office of Public Instruction prior to November 15, 1988.

ENERGY CALENDAR FEATURES STUDENT ART

The Montana Energy Education Council's 1989 Montana Centennial Energy Calendar will be ready for distribution this fall. Teachers attending the MEA Convention in Helena are asked to stop by the Energy Room to pick up their free copy.

The calendar, an official commemorative project of the Montana Centennial, features the winning artwork from MEEC's poster contest held for 4th, 5th and 6th graders last spring. The theme for the contest was "A Hundred Years of Energy in Montana." The 13 student winners will participate in a Governor's Award Ceremony in October, and each will receive a $50 U.S. Savings Bond.

The purpose of this project is to increase energy awareness at the elementary school level as well as to disseminate information about the history of energy in Montana. Major sponsors of this project include the Energy Division of the Montana Department of Natural Resources and Conservation, the Montana Power Company, and the Montana Energy Education Council. Other contributors are Mountain States Energy, the Bonneville Power Administration, the Northwest Power Planning Council's Montana Office, the National Center for Appropriate Technology, the Alternative Energy Resources Organization, the Montana Office of Public Instruction, Montana Extension Service, and Barnhart Designs.

For more information on this project, contact Jenny Younger, Executive Director, Montana Energy Education Council, 5555 Black Bear Road, Buzeman 59715.

PRESIDENTIAL AWARDS IN MATHEMATICS

The names of the state nominees for the Presidential Awards for Excellence in the Teaching of Mathematics have been forwarded to the National Science Foundation in Washington, D.C. The Muntana finalists were Diane Burrell, Hellgate High School, Missoula; Kim Girard, Nashua High School; and Leah McCracken, Lockwood Junior High School, Billings.

In October, one teacher from each state will be selected by the national awards committee to receive a $5,000 grant to supplement his or her school mathematics program. The state winners will receive a trip to Washington, D.C. to receive their award, attend a reception for all mathematics and science awardees and receive other honors bestowed upon them by business and industry.

Other state finalists in mathematics were Jim Hamling, Lewistown Middle School; Terry Bakken, Brady High School; James Wichman, Belt High School; Kathy Anderson, Sentinel High School, Missoula; Mike Pierre, Monforton School, Bozeman; Fen Wilkinson, Dawson County High School, Glendive; Lynn Sorenson, Powell County High School, Deer Lodge; Mike Trudnowski, Loyola Sacred Heart High School, Missoula; Robert Hull, Joliet High School; and Dean Preble, Billings West High School.

Nominations for next year's program can be submitted to the State Director in January. Teachers must complete nomination forms by early April for this prestigious awards program. For more information contact Dan Dolan, OPI, 444-4436.

CALIFORNIA SHARES *HONORSCAM* INFORMATION

California State Superintendent of Public Instruction Bill Honig has shared information with fellow chiefs concerning the exploitation of students and their parents by several companies engaged in selling services far less valuable than promised.

With minor variations, these companies follow a pattern of direct mail solicitations to students, their parents and, in some cases, grandparents. The three corporations portray themselves as educational in nature and inform the prospective customer that the student is one of a select group of students who will be honored by the company.

The three companies named in "Honorscam" are: National Honor Roll (Los Angeles), Outstanding Students of America (Indiana—dba Outstanding High School Students of America, Outstanding College Students of America), and United States Achievement Academy (Kentucky—dba Academic All American, National Secondary Education Council, National Secondary Education Council Scholarship Foundation).

Honig said in his letter to Superintendent Argenbright, "By providing this information to all Chiefs, I hope we are able to maximize the protection of the interests of students throughout the country."

A CERTIFICATION REMINDER

Individuals seeking credits to renew their teaching certificates should keep the following in mind:

1. Credits must be attained from a **fully** accredited college. A provisionally approved college is not acceptable. In addition, regular college credits must be earned, not continuing education units or some other unit of measurement. The only option to academic credit is school district inservice or individual equivalency approved in advance of the undertaking. Guidelines for these options may be obtained from Certification Services.

2. Some individuals and noneducational agencies offer credits and imply that they will count toward renewal of teaching certificates. When in doubt, check with Certification Services.

3. Credits used for renewal must have been earned during the five-year period immediately preceding the validation date of the new certificate. For instance, for a certificate expiring on June 30, 1988, credits earned from Summer 1983 through Summer 1988 are acceptable. Renewal requirements consist of teaching experience and, in most cases, academic credits. When all requirements for renewal are not met, it results in a reinstatement category. In addition to meeting academic requirements, teachers and administrators who fall into the reinstatement category must pass the National Teacher Exam Core Battery as a condition for acquiring any further certification.

4. "Year of teaching experience" means employment during a school year by an educational institution as a member of the instructional staff. Experience will be considered on an individual basis by the appropriate official.

GREAT FALLS AND BOZEMAN HONORED FOR ENERGY SAVINGS

School officials from Great Falls and Bozeman were honored by Governor Ted Schwinden this summer for their leadership in saving energy.

Gary Griffith, director of maintenance, operations and support services for the Bozeman School District, and Norbert "Nobby" Johnson, director of building and grounds for Great Falls School District 1, were honored for their work under the Institutional Conservation Program. The federally funded program is administered by the Montana Department of Natural Resources and Conservation. ICP grants cover half the cost of installing energy conservation measures in schools and hospitals.

Griffith and Johnson have both been active in the Institutional Conservation Program for six years, spearheading substantial energy conservation projects in their districts.

In a report last year, Johnson calculated that Great Falls School District 1 had saved over $370,000 on its gas and electricity bills.

"Had energy consumption rates been like they were in 1974-75," he said, "the school district would have needed $373,453 in additional funds to meet its budget requirements last year."

With the help of ICP grants, Griffith has cut the Bozeman school system's natural gas bills from $309,000 to $123,000 a year over the past five years.

"In addition to constantly looking for innovative ways to improve the energy efficiency of their own buildings, DNRC Director Larry Fasbender said, "Gary and Nobby have always been willing to help other school districts and commercial building managers solve their energy problems."

MONTANA SCHOOLS CUT ENERGY USE

A team of students from DeSmet School in Missoula recently won the Montana Energy Challenge sponsored by the Montana Department of Natural Resources and Conservation.

Ten schools competed in the challenge to see which school could cut its energy use the most. DeSmet used 26 percent less energy during the 1987-88 winter than the year before.

Second-place Scobey School cut its energy use 24 percent, while Sun River School took third place by cutting its energy use 22 percent.

DeSmet School received $850 for use for energy-related activities or materials. Scobey School received $650 and Sun River School got $500.

DNRC energy education specialists toured each of the 10 schools last fall, pointing out ways to save energy. A team of students at each school worked on the suggestions through the winter. DNRC engineers compared each school's energy use to its energy use for the same period a year ago. The energy consumption data was compared on a per-degree-day basis to factor out weather differences. The engineers calculated that the 10 schools cut their energy costs nearly $10,000 during the four-month challenge.

Other schools involved in the competition were the Winans School in Livingston, South School in Laurel, Lincoln School in Anaconda, Burlington School in Billings, and the elementary schools in Whitewater, Bigfork and Marion.

UNCLASSIFIEDS

Unclassifieds *is a bulletin board of resources, events and announcements of interest to educators. The naming of a service or product does not mean a recommendation or endorsement by the Office of Public Instruction*

CONTESTS

NAME THE SHUTTLE COMPETITION

Schools have until December 31, 1988 to enter the National Aeronautics and Space Administration competition to name the new Space Shuttle orbiter Students in kindergarten through 12th grade will form teams and research to support and justify a name. The name proposed must be of a sea vessel used in research or exploration. A team coordinator, who must be a faculty member, will be responsible for directing team activities Interested faculty members can obtain Orbiter-Naming Program Entry packets by contacting the Council of Chief State School Officers, which is administering the program for NASA, by writing NASA Orbiter-Naming Program, Council of Chief State School Officers, 400 North Capitol Street, N W , Suite 379, Washington, DC 20001, (202) 783-5109 or (202) 783-5113. Photographs illustrating the shuttle (OV 105) may be obtained by phoning (202) 453-8383 and ordering black and white photos 88-H-96, 88-H-97, 88-H-98, 88-H-99, or color 88-HC-61.

BICENTENNIAL OF THE U.S. CONSTITUTION

The Commission on the Bicentennial of the U.S. Constitution will cosponsor a nationwide high school essay contest to encourage study of the Constitution. Administered by the Daughters of the American Revolution, the nationwide writing competition will be conducted during the 1988-89 school year and will be open to students in the 11th and 12th grades who are taking, or who have completed, a course in U.S. history or government.

The topic for the contest is "Under the Constitution, how do our responsibilities as "We The People" influence the Presidency and Congress in the discharge of their duties?" Essays of from 600 to 1,000 words will be submitted to sponsoring chapters of the DAR and then judged at the local, state and regional level. A national winner, to be chosen from winning contestants in eight regional divisions, will receive a $500 prize.

Contact your local DAR chapter for more information or application rules.

DAR GOOD CITIZEN CONTEST

The Montana State Society Daughters of the American Revolution is once again sponsoring the Montana DAR Good Citizen contest. The contest is open to both boys and girls in the senior class of accredited public and private high schools. Good Citizens are selected on a merit basis including a completed questionnaire, scholastic record, and recommendations based on the qualifications of leadership, dependability, service, and patriotism The National Association of Secondary School Principals has placed this program on the Advisory List of National Contests and Activities for 1988-89.

For more Information about the DAR Good Citizen contest, contact Mrs Annabelle N Anderson, 175 Rocky Creek Road, Bozeman, MT 59715.

VOICE OF DEMOCRACY

The Veterans of Foreign Wars of the United States and its Ladies Auxiliary is sponsoring the 42nd Annual Voice of Democracy Scholarship Program. For more information about the program contact Mr. Charles Barbero, P.O. Box 32, Boyes, MT 59316, 427-5261.

COMPUTER LEARNING MONTH SWEEPSTAKES

In celebration of Computer Learning Month, October 1988, Logo Computer Systems Inc. (LCSI) will sponsor a special sweepstakes for kindergarten through twelfth grade students in the U.S. and Canada.

Each student must send in a printout of a project that includes both text and graphics which was created with LogoWriter. Students may work individually or in a group of up to four, but each student in the group must submit a separate entry form along with the project printout.

Winners will be determined by random drawing. The first prize winner will receive a home computer and the home edition of LogoWriter

Sweepstakes entries must be created between September 1 and November 30, 1988 and must be postmarked no later than November 30, 1988.

For a complete list of contest rules and official entry blanks write to LogoWriter Student Sweepstakes, 330 West 58th St., Suite 5M, New York, NY 10019.

CONFERENCES

VOCATIONAL EDUCATION

"Preparing for the Next Millennium, Vocational Training—Catching Up or Leading the Way?" is the title of a conference to be held September 27 at the Great Falls Sheraton. Conference participants will explore the impact of a changing economy and high technology on Montana's workforce, discuss the nature of tomorrow's jobs and job training needs, and analyze Montana's present and future economy.

Leonard Lane, President of LLA/Strategic Development Group, Inc. and a specialist in strategic planning, corporate culture, and establishing organizational climates for performance will be the keynote speaker. Gubernatorial candidates Tom Judge and Stan Stephens will address the group during the luncheon, and state leaders in education and business will participate in panel discussions and presentations during the day.

For agenda and registration information contact the Montana Council on Vocational Education, 1228 11th Avenue, Helena, MT 59620, phone 444-2964

CHILD ABUSE PREVENTION

The second annual child abuse prevention conference will be held October 28 and 29 in Helena. The conference will include workshops on parent support, involving churches, and prevention programming. Conference participants will learn how they can strengthen their communities' support and commitment to children and families. A legislative forum will address upcoming legislation affecting children and families.

Keynote speaker, Deborah Darol, from the National Committee for Prevention of Child Abuse in Chicago, will address the issue of corporal punishment in schools and custodial settings.

Registration will begin at 12:45 p.m on Friday, October 28, at the Colonial Inn in Helena Conference registration fees, $35 for those who pre-register and $45 at the door, include conference materials and Saturday's lunch.

For more information contact Tracy Proctor, P.O. Box 246, Kalispell, MT 59903, 752-6565, or Georgina Park, P.O Box 3805, Missoula, MT 59806.

GUIDANCE

"Counseling, Students' Needs, and the Technological Society: High Touch in a High Tech Age" has been tentatively scheduled for Bozeman either the last week in November or the first week in December. This one-day conference focuses on the math and science skills necessary to enter postsecondary institutions (vocational-technical centers and four-year colleges) and for future careers. This conference is designed for counselors and administrators. Speakers will include representatives from business and postsecondary institutions.

For more information about the conference contact Judy Birch, OPI Guidance Specialist, 444-5663.

RESOURCES

SCIENCE/TECHNOLOGY/SOCIETY

The Social Science Education Consortium has published two new resources for teaching about science-related social issues. *Science/Technology/Society: Model Lessons for Secondary Social Studies Classes* (order no. 315-2) and *Model Lessons for Secondary Science Classes* (order no. 316-0) each contain more than 30 lessons ranging from quick "attention-grabbers" to multi-day units on STS issues. Sample topics: population growth, organ transplants, environmental impact of the automobile, energy and transportation, erosion, scientific experimentation on animals, food additives, etc.

Order from SSEC Publications, 855 Broadway, Boulder, CO 80302. Each volume is $15.95 plus postage and handling. Orders of less than $20 must be prepaid; no postage and handling are added to prepaid orders.

CENTENNIAL PUBLICATION

Montana's Centennial Office now has available a publication titled "Your Classroom and the Montana Centennial," written by Larry Anderson, librarian at Helena High School. The book contains ideas to incorporate the celebration of Montana's statehood (1889) into the curriculum. To receive a free copy, write to Montana Centennial Office, P.O. Box 1989, Capitol Station, Helena, MT 59620.

REQUEST FOR PROPOSALS

ADULT BASIC EDUCATION PROPOSALS

The Office of Public Instruction has issued a request for proposals under Section 353 of the new Adult Basic Education Act. Proposals, which are due September 22, 1988, must address "Special Experimental Demonstration Projects and Teacher Training." The office will also issue a request for proposals regarding literacy training and basic remediation for adult homeless individuals. Request additional information from Bob Ruthemeyer, OPI, 444-4443.

BIKE TOUR

CENTENNIAL RIDE ACROSS MONTANA (CRAM)

A bicycle tour commemorating 100 years of Montana statehood will start on July 23, 1989 and finish on August 4, 1989. The 825-mile tour will begin in Yaak and proceed on a course through Libby, Kalispell, West Glacier, Browning, Choteau, Belt, Stanford, Lewistown, Roundup, Hardin, Lame Deer, Broadus and finish in Alzada Riders may join for one or more segments between towns (ranging from 37 to 100 miles) or go for the whole distance. For more information or a registration form write CRAM, Box 9042, Helena, MT 59604.

WORKSHOPS

"HELPING FAMILIES BUILD INTIMATE RELATIONSHIPS"

The Child Abuse Prevention Council will sponsor this two-day workshop on October 24-25 in Kalispell Keynote speaker will be Cathleen Brooks, founder and director of *Next Step*, an education, training and consulting service in San Diego. Ms. Brooks will address the recovery process for children of alcoholics and/or dysfunctional parenting, the role of treatment, self-help and self-parenting. On the second day Andy Hudak, a Flathead Valley therapist, will present "Grace, Pain and Addiction," what alcoholics, sex offenders, batterers, their spouses and their children have in common.

The cost will be $80 per person For more information call Tracy Proctor at 752-6565

Salute to Schools Being Organized by Capital City 89ers

The 89ers planning committee working on "Salute to Schools." Clockwise from left: Senator Joe Mazurek, Sally Halvorson of the Legislative Council, Jennifer Thompson of the Historical Society and Rita Blouke of Helena High School.

The Capital City 89ers are organizing a Salute to Schools as part of their celebration of the Montana Centennial. The following article was submitted by a committee of the 89ers.

During our celebration of the Centennial year the Capital City 89ers would like to encourage your school's students to visit the legislature and participate in *Salute to Schools* activities. We hope you will use this opportunity to help students learn more about the history of your area and the people who settled it.

As part of our activities, we would like every classroom in the state to contribute one page to a *Montana Sampler* that will be presented to the legislature. The focus of the sampler will be a recognition of the history of your area. Contents of the page could be a story, poem, picture, interview with a century citizen, biography, geneology, essay, or any other media that can be contained on one page.

While we encourage you and your students to attend the legislative session and personally place your page in the notebook, you may mail your contribution to Salute to Schools, 1300 Billings Avenue, Helena 59601. Type or print your county, school and teacher name in the upper right hand corner. The book will be organized alphabetically by county and then school within the county.

If you are planning to attend the legislative session, we have some special events planned. We are going to publish a booklet about the legislative process to be used as an educational unit. We will give special recognition to your students, ask them to sign the centennial scroll and have a memento for each student who visits the legislature. We will provide a list of optional activities for your visit to Helena and help you schedule your time here.

Materials on the Salute to Schools will be sent to every school principal during September, and we will include a legislative registration form with that mailing. Send the registration form to the Helena address above.

We hope that all Montana schools will be able to participate in the *Salute to Schools* and share a little of Montana's history and your area's history with your students. We encourage you to use this year to celebrate not only our past but our future. The future of Montana is Montana's young people.

What Does Popcorn Have To Do With Math?

The seventh grade class at Nashua knows! It started out one afternoon with our notes on volume. We use food a lot in our examples (and it makes us hungry). The food that day was popcorn! We wondered how much the volume changed when corn kernels were popped. Someone suggested popping some corn to find out. We decided to give up our study hall period to do this. Our classmates volunteered to bring in popping corn, bags, air poppers, and to get balance scales from the science teacher.

We wanted to answer three questions with our experiment:

1. How many kernels are in 1 pound of popcorn?

2. Is 1 pound of popcorn still 1 pound once it is popped?

3. How many cups of popped corn do you get from one pound of unpopped corn?

Before starting, we all guessed what the answers might be. The lab began with several minutes of counting kernels. There were 3,577 kernels in our pound of popcorn. To answer questions 2 and 3 we divided into groups and handed out equipment and jobs. Then we ran into a problem. The bag of popping corn was measured in pounds but we had only gram weights for the scales. Luckily someone had a conversion table in a notebook. After that problem was solved, things were okay. Students were doing their jobs, the poppers were fine, and no one was having a popcorn fight.

The volume of the popped corn was measured in cups when we collected it from the poppers. To weigh the popcorn, we put it in bags, then subtracted the weight of the empty bags. We also found the weight of the kernels which did not pop.

Our results were that 2 cups of unpopped corn turned into 53.5 cups of popped corn. Also, the popped corn weighed 60 grams (about 2 ounces) less. We think the lost weight was water in the kernels which turned to steam which is why the corn pops.

When we looked at the answers to our questions, it got us to thinking. If we counted another pound of popcorn, would we find the same number of kernels? If we used a different brand of popcorn, would the results be the same? (We used Jolly Time brand.) If we used oil poppers would we still lose 2 ounces weight in popping?

We challenge other seventh graders, or anyone who is interested, to try this experiment using oil and a pan or any method but air poppers. Send us your results.

P.S. The best part was eating the popcorn!

Teacher's Note: This lab activity was the students' idea. They did the planning, made up the questions, and did the work (except they called it fun). The above article is a compilation of the write-ups they turned in.

This article was submitted by Mrs. Kim Girard, math teacher at Nasbua. Mrs. Girard was one of three state finalists whose names were submitted to the Presidential Awards for Excellence in Teaching Mathematics. She is also state director for the Montana Council of Teachers of Mathematics state math contest.

Shown with some of their popcorn: Front Row: Michelle Seal, Michelle Padgett, Cara Guenther, Joe Blankenship, Troy Vandall. Middle Row: Joe Laumeyer, Wes Rorvik, Greg Nybakken, Neal Walton, Darren Pickthorn. Back Row: Jeannette Wagner, Kia Barnes, Rebecca Calamar, Cole Sibley, Tara Sylvester, Clint Nefzger, Kenton FastHorse, Rodney Glasoe, Mrs. Girard.

Spotlight On . . .

Excellence is Elen

Barbara Konesky Patrick is the principal at Boulder Elementary School. She took a leave of absence during the 1987-88 school year and spent that time serving as Elementary School Specialist in the Office of Public Instruction. Barbara has left the office now, but before she left we asked her to tell us about some of the good programs she saw around Montana and what she believes makes a good school. Here are her comments.

Plains Elementary Library

Excellence Is Elementary

Just what is a good school? According to some researchers and on-site visitors of effective schools, the characteristics are varied and many. It has been my unequaled privilege to spend a year at the state level of education in Montana, and I'm grateful to those schools throughout the state that have so graciously welcomed me into their facilities. I have chosen six characteristics of effective schools, since the places I have visited or communicated with fit them all. Please keep in mind: These few are just samples of the many!

1. Treasured Teachers Energize Good Schools

First and foremost (after students, of course), teachers make the biggest difference in schools. Nicholas Kazantzakis suggests that ideal teachers are those who use themselves as bridges over which they invite their students to cross. Then, having facilitated their crossing, they joyfully collapse, encouraging the students to create bridges of their own.

We need teachers who have a sense of unfinishedness. Just as teachers should know that in any class they never finish what they begin (or, if they do, it probably wasn't worth beginning), so, too, students should know that their education does not end with school. Teachers must try to communicate to them a continuing zest for learning and allow them to experience that zest with them. A third grade girl once asked her teacher, "Do I now know half as much as I don't know?" What a wonderful question from the happy state of mind of a third grader, who thought that some day she was really going to know everything.

2. A Positive School Climate

"Nothing is as important as our school" is a sentiment shared by teachers and parents in Highwood, Montana. Education is a real priority here, and community members and staff are willing to devote the extra time and effort to ensure a quality education. Teachers can always be found in the school on weekends. Theirs is not just an eight to four o'clock responsibility. The people in the community also see themselves as responsible for quality education. Despite difficult economic times, Highwood voters have never defeated a voted levy for education. The reason that Highwood has an excellent school is simple . . . people are committed to it.

Not only does Poplar Elementary School have an excellent physical plant, but it has the budgetary and teacher resources necessary to make a top-notch school. The student/teacher ratio is 15:1; classrooms are equipped with computers; and, most recently, a full-time coordinator serves gifted and talented students. At Poplar Elementary School, pride is visible, progress is consistent, and promise for the future is optimistic!

3. Good Schools Cherish Every Child

A child entering Paxson School in Missoula enters a world of diverse learning activities and caring adults. Children are the chief topic of conversation at Paxson. The principal, teachers, secretary, aides, custodians and volunteers all focus on children as their reason for coming to work each day. They rejoice in the children's successes and they work as a team to overcome failures. A student new to Paxson soon learns that what happens on the playground will be known to the classroom teacher, and the principal will hear of what happens in class. As in a healthy family, at Paxson each student is known. Discipline is prompt, consistent and fair and is conducted in an atmosphere of mutual respect. Individual abilities and talents are discovered and developed. Children are helped to grow in their sense of security and personal worth by adults who affirm their special characteristics.

nentary

This year the School Recognition Program will recognize outstanding public and private secondary schools across the United States. Schools will be identified on the basis of their effectiveness in meeting their particular goals, as well as the standards of quality applicable to secondary schools generally. An important consideration will be the school's success in furthering the intellectual, social, and moral growth of all its students. In seeking successful schools, the program also seeks schools that have overcome obstacles and problems and that are continuing to concentrate on improvement.

For a school to be recognized, there must be clear evidence that its students are developing solid skills in reading, writing, and mathematics. In addition, there must be evidence that school policies, programs, and practices foster the development of sound character, a sense of self-worth, democratic values, ethical judgment, and self discipline. Instructional programs should be organized to provide individual students with high-quality knowledge appropriate to their age and grade in literature, mathematics, science, history, geography, civics, foreign languages, the arts, and other subjects that the state, school system, or school deems important.

For more information on this program contact Gile Mitchell, Assistant Superintendent for Curriculum Services, OPI, 444-2089.

"Looks like there's a lot of learning going on around here," remarked a recent visitor from OPI to Melville School in Sweet Grass County. Every school day, called together by peals from the old fashioned bell tower, 24 students, three teachers and an aide gather around the flagpole. Parents come from near and far to deliver their children to the church-and-steeple-like structure in the shadow of the Crazy Mountains.

Trustees, parents and teachers have made a commitment to excellence here. "Whatever is best for the kids" unites this educational team where school means challenges, hard work, intrinsic reward, security, enrichment, excitement and fun. Students set high expectations for themselves, while parents and teachers help them meet their goals.

4. Good Schools Attract Partners

For many effective schools, it is their philosophy, constantly articulated and demonstrated, that gets the entire community involved. An excellent example of this is Garfield School in Billings, the one public elementary school in Montana chosen for a site visit this year from the U.S. Department of Education's Elementary School Recognition Program. Members of the community volunteer their time on a daily basis at Garfield School. Fifty-two adults tutor students in a one-on-one format in the HOSTS (Helping One Student to Succeed) program which focuses on improving reading and math skills. Volunteers also work with students in the TASK (Tutors Assisting Special Kids) program in the special education resource rooms. Well over 2,000 hours of volunteer time were given to Garfield Elementary by the tutors last year. Parents tutoring parents has evolved as a result of parent volunteers being involved in the visual screening program. Many senior citizens, who frequent the local Senior Citizens Center, have given countless hours to the school, cutting, coloring and creating instructional materials for classrooms.

5. The Best Principals Clear the Way for Teachers to Teach

Again and again, in each school I've visited, I realized that good principals are good leaders. They know how to communicate the underlying values and purposes of the school, and how to get students and teachers to strive toward those goals as a team. A good principal is like the captain of a ship—he or she knows where the vessel is headed and what it takes to get there.

Poplar Elementary Art Room

6. Supercharged Curricula Makes Learning Stick

"There are ways to learn the basic skills, and then there are ways . . ." At the Edgerton School in Kalispell all children (age five by September 10) entering kindergarten are screened with the Gesell School Readiness device. After the screening parents choose one of these alternatives: (1) wait one more year before beginning kindergarten; (2) place the child in readiness kindergarten and kindergarten the following year; (3) place the child in kindergarten. Those children who attend regular kindergarten are screened on a recommendation basis only, in the spring, to determine pre-first or first grade placement.

At Independent School near Billings the staff added many hands-on and laboratory activities to science. They began to use a three-acre "outdoor lab" on school grounds which includes a small creek, a swampy area with cattails, a dry land patch replete with sagebrush and numerous Russian Olive trees. Project WILD and OBIS supplement a basic text.

Heart Butte Elementary has made an effort to combine art and music programs into one that uses the cultural heritage of the Native American population it serves. Heart Butte Elementary is situated on the Blackfeet Indian Reservation and, due to this geographical setting, has developed a curriculum design to introduce 7th and 8th grade students to local as well as national cultural differences in the areas of art and music. The goal is to provide students with a greater understanding of the uniqueness of their cultural heritage and how it shares certain qualities with other cultures found throughout our country.

A video club is being formed at Plains Elementary School, and sixth grade students who wish to join will produce and direct a live newscast that will broadcast a weekly news program using an in-house transmitter. They will also be trained in the use of video equipment and will tape various school programs. The news program will expand into a daily telecast in the future.

In closing I'd like to emphasize that the most important characteristics of Montana's elementary schools are the positive results they produce. They have high quality staffs who take instruction seriously. They have strong leadership. They hold high expectations and can motivate staffs and students. They creatively use people and material resources. They create work environments where staff members grow and continue to perform at high levels. They involve the community so that there is a collective sense of ownership in the education process. They tackle problems with a force of energy that converts them from liabilities into strengths. They are definitely places where children succeed. There should be no doubt in our minds. In Montana, excellence is elementary!

RESOURCE NOTES

ARTS IN EDUCATION

There is plenty of **good news** to share as the school year begins! Kids—conferences—caucuses—curriculum—and a few other topics besides!

Kids

Congratulations to the five high school juniors (87-88) who were awarded the Marie Walsh Sharpe Art Foundation full scholarships for a two-week seminar at Colorado College, Colorado Springs, Colorado, June/July 1988. The gifted art students are: *Amanda Dunlap, Lance Osler,* Flathead High School, Kalispell; *Kyle Miller, Nadya Pittendrigh,* Bozeman High School; and *Julie Tripp,* Big Sky High School, Missoula.

Congratulations!

Ray Campeau, art teacher, Bozeman High School, was one of 20 secondary art and music instructors chosen nationally as teacher-researchers for the 1988 Summer Research Institute for the National Arts Education Research Center, New York University. The main objective of the program, which is funded jointly by the Department of Education and National Endowment for the Arts, is to initiate original classroom-based art research projects to be implemented and assisted with follow-up activities through New York University.

Curriculum I: Montana Visual Art Curriculum Guide

Fifty copies of the new *Montana Visual Art Curriculum Guide* were printed in June. The guide was utilized during the Visual Art Curriculum Development Workshop at Birch Creek, Western Montana College, June 20-24. During the session, participants began to develop their own district level K-12 art programs based on district philosophy, goals and any existing curriculum or course descriptions. This course should be available each summer at WMC for 2 credits, with available Mary Emerick Art Scholarships—so, you might want to plan ahead for next summer. Final editing and reprinting of the guide will be done this year and we will make it available to you.

Curriculum II: A Paideia/Discipline-Based Art Education Project

Paideia is a Greek word meaning the general learning that all humans should possess. Mortimer J. Adler's Paideia proposal's credo is that the best education for the best is the best education for all. Paideia's goal is to revive teachers' interest in their general learning and to help students in both elementary and high school think, reason and evaluate for themselves through Socratic seminars on great works and through coaching of skills such as reading, speaking, calculating and aesthetic valuing.

A Fine Arts Paideia Model In Montana? Why Not?

Very few, if any, art and music models exist using the Paideia model, according to information shared by Paideia Associates during the spring conference in Butte. There is now a plan under way to develop some in Montana.

An excellent basis for this is work undertaken in the past three years by the Arts Consortium (15 districts statewide, university system, related arts agencies and organizations) to develop art programs using art history, art criticism and aesthetics in the teaching of art production. One of the techniques used is called "aesthetic scanning" which is a method of "reading" a work of art: painting, sculpture, architecture, print, photograph, etc. Great works of art are as much a focus of the Paideia concept as those of literature and drama. In order to work on music models, assistance will be sought from music educators in the state regarding "aesthetic scanning" as it applies to great musical works.

During the Yellow Bay II Planning Meeting of the Arts Consortium, a videotaped session was conducted with ten 4th to 6th graders to model the Paideia concept while doing aesthetic scanning. DaVinci's "Mona Lisa" and Miro's "Head of a Woman" were used. The model session was led by Bobby Tilton and Jackie Alford, both art teachers K-8, Missoula District No. 1, Carl Smart, Fine Arts Supervisor, Missoula, and Jan Athwal were also involved; all the above attended the April Paideia Conference in Butte. Correspondence is under way with Lani Duke of the Getty Center for Education in Arts to identify possible resources for funding this project. Suggestions for both the art and music areas are most welcome. Please contact Janet Athwal, OPI, 444-4442.

Project Excellence: Fine Arts Component

Some revisions have been made in the Fine Arts section of the Project Excellence draft since the statewide public hearings in May and the Implementation Committee meeting in July. Claudette Morton, Terri O'Fallon, Sandy Verschoot, Jim Poor and Jan Athwal met to review the draft and to make adjustments. The revised visual art section will become part of the Visual Art Curriculum Guide and the entire Fine Arts section will be available for the caucus, September 23-25.

Conferences Report

The New Horizons for Learning **Lifespan** Conference, held this summer at George Mason University, Fairfax, Virginia was an extraordinary experience. I believe that the optimum energy of all those involved in the **Lifespan** will be an explosive force in the world, in this country, in the northwest and in our own state! The awesome creative ability to bring about such an event belongs to Dee Dickinson, Director, New Horizons for Learning (an international human resource network). It was not so much that we were "standing on the shoulders of giants" as it was that we were invited to brush shoulders with those giants—Marian Diamond (brain research), Paul MacLean (triune brain theory), Mihaly Czikszentmihalyi (human development/education), Reuven Feurestein (cognitive psychology), Arthur Costa (Pres., ASDC), Barbara Clark, (gifted ed/integrative learning), Ron Gross (lifelong learning), Harry Moody (aging/society), David Perkins (Harvard's *Project Zero),* Howard Gardner (multiple intelligences) and many more. There were ample opportunities to engage genius in dialogue and to be challenged to distill it all into a usable personal design.

In addition, I can hardly think of a presenter who did not either mention directly or refer in some way to the **ARTS as vehicles for learning expression or meaning**. Throughout the conference, creative movement, imagining and visualization, music and sound, dramatic enactment, creative writing, private insight and social interaction were utilized—all avenues of the arts. It was possible to imagine the arts as **central** to lifespan learning.

Julie Cook, Director, Artists' Services, Montana Arts Council, and I are particularly challenged at this time to apply the **Lifespan** conference's relevant information and processes to our current project: the **Statewide Caucus on Arts Education,** September 23-25, 1988, at Western Montana College, Dillon. We are especially fortunate, we believe, because we have chosen Dee Dickinson to both keynote our opening session and to train the group leaders for the Caucus. We feel Dee is a true **visionary** in the field of learning itself and the arts as essential vehicles for learning. This is our focus as well as the utter practicality of bringing this vision to bear on the lives of the children and all citizens in our state.

Teachers in all arts areas should have received notice of this Caucus early last June. However, if you would like further information, contact Julie Cook (443-4338) or Janet Athwal (444-4442).

Consortium: 1989 Institute

Plans for a 1989 Montana Conference on Art Education No. 1 for the training of teacher/administrator teams of the 15 Arts Consortium sites in the teaching of art history, art criticism, aesthetics and art production were initiated at Yellow Bay II. Logistics, finance and curriculum committees were formed to define tasks, delineate deadlines and report progress to the Caucus in September.

Finally...Please take advantage of new resources and materials available through OPI Film/Video Center. In particular is a series on *The Value of Art in Education* (3 videotapes). Such people as Harry Broudy, Ernest Boyer, Elliot Eisner, William Bennett and Frank Hodsoll address the importance of the arts. Also, a videotape: *Shaping the Future: Arts Education*, the case for comprehensive, sequential arts education K-12, is available from me.

Have a creative, productive year! Please let me know if there is any way in which I can be of assistance to you.

—Janet Athwal
Arts in Education Specialist

GIFTED AND TALENTED

Future Problem Solving Program "Preparing Tomorrow's Leaders by Challenging Them Today"

The Future Problem Solving Program is a year-long program challenging students to think creatively, analytically, critically and futuristically. Participants in the program are trained to use a six-step problem solving process to try to solve some of the challenging issues facing society. In 1988-89, for example, students will examine and try to solve problems related to energy, young people and the law, nutrition, employment, and terrorism.

After working through each of the topics and using the prescribed six-step process, the students will send their work by designated due dates to trained evaluators. The evaluators will score the work and return it to the students with suggestions for improvement. This feedback is a critical element of the program, which stresses student growth and improvement. Besides learning a problem solving process, students will also be developing their communication, teamwork and thinking skills.

Students in the program work in teams of four and are divided into grade level divisions: Juniors (grades 4-6), Intermediates (grades 7-9), and Seniors (grades 10-12). The teams that score very well on the third practice problem will receive invitations to take part in the State Future Problem Solving Bowls, which will be held in the spring. The three winning teams (one from each grade level division) will be invited to participate in the International Future Problem Solving Conference at the University of Michigan on June 11-14. About 1,200 students and their teachers/coaches are expected to attend the International Conference, which will celebrate the 15th anniversary of the program.

For more information about being involved in this program, which is currently serving about 175,000 young people, contact the director of the Montana Future Problem Solving Program: Dr. Claudia Clague, 400 W. Park, Butte, MT 59701 (406) 782-7011.

RESOURCE NOTES

SCHOOL FOOD SERVICE

Bris Skiles will be presenting a series of School Food Service Workshops for administrators, clerks and managers this fall. Workshop topics will include reimbursements, program regulations and policies, civil rights, and other topics appropriate to program operations. The dates, times and places for these workshops are:

August 30—3:30-5:30 p.m., Butte Administration Board Room, 111 North Montana Avenue.

August 31—3:30-5:30 p.m., Missoula Elementary Administration Board Room, 215 South 6th West.

September 1—3:30-5:30 p.m., Columbia Falls High School Cafeteria, 610 13th Street West.

September 6—3:30-5:30 p.m., Havre Robbins School, Administration Board Room, 426 5th Avenue.

September 7—3:30-5:30 p.m., Shelby High School, NW of Shelby.

September 8—3:30-5:30 p.m., Great Falls Vo-Tech, Multipurpose Room, 2100 16th Avenue South.

September 12—3:30-5:30 p.m., Lincoln School, Administration Board Room, 215 7th Avenue South, Lewistown

September 13—3:30-5:30 p.m., Fred Graff School Cafeteria, 417 East Sixth, Laurel.

September 14—3:30-5:30 p.m., Belgrade Middle School, 415 Southview Avenue.

September 19—3:30-5:30 p.m., Forsyth Elementary School Cafeteria.

September 20—3:30-5:30 p.m., Sidney High School, 4th Avenue SW.

September 21—3:30-5:30 p.m., Plentywood High School.

September 22—3:30-5:30 p.m., Glasgow High School, Highlands Addition.

National School Lunch Week

The week of October 9 through 15 is designated as National School Lunch Week.

The Universal School Lunch Menu is: Deli Turkey Sandwich on Whole Wheat Bun, Leafy Green Lettuce, Potato Wedge, Calico Fruit Salad, Autumn Spice Square, Milk.

This meal—2 oz. cooked turkey thin sliced, 4 oz. potato wedge, ¼ cup calico fruit salad, 2 oz. whole wheat bun, 8 oz. 2% milk—meets the following approximate RDA percentages for the average 12-year-old child: calories 30%, protein 105%, vitamin A 19%, vitamin C 56%, fat 31%, iron 30%, sodium 20%.

Alternate Menu 1: Baked potato with homegrown chili, broccoli and carrot stix, whole wheat cinnamon roll with raisins, chilled applesauce, milk.

This meal—4 oz. chili bean and beef, 1 oz. carrot and broccoli stix, ½ cup applesauce unsweetened, 2 oz. whole wheat cinnamon roll, 8 oz. 2% milk—meets the following approximate RDA percentages for the average 12-year-old child: calories 24%, protein 67%, vitamin A 101%, vitamin C 58%, fat 23%, iron 28%, sodium 29%.

Alternate Menu 2: pizza, garden salad, chilled peaches, cornmeal cookie, milk.

This meal—4" x 6" pizza, 2 oz. garden salad, ½ cup canned peaches—light syrup, 1 oz. cornmeal cookie, 8 oz. 2% low fat milk—meets the following approximate RDA percentage for the average 12-year-old child: calories 23%, protein 86%, vitamin A 67%, vitamin C 42%, fat 28%, iron 23%, sodium 19%.

Schools are urged to serve at least one of these menus on Monday, Tuesday or Wednesday of this week

—H. Brisbin Skiles
Director
Division of School Food Services

TRAFFIC EDUCATION

1988-89 Program Applications Due

If you have not yet made application for your 1988-89 Traffic Education Program, please do so as soon as possible. Your application must be approved **before** the program begins if you are to be eligible for reimbursement. **ALL** traffic education teachers must have current approval. Reimbursement payments for FY 88 Traffic Education programs have been sent. If you have not received verification or if you have questions, call 444-4432 and talk to Isabel or Curt.

National Conference Attendee

Walt Serba, Montana Traffic Education Association president elect and teacher for Missoula County High Schools, represented Montana at the American Driver and Traffic Safety Education Association Conference in Boston, Massachusetts.

MTEA State Spring Conference

The 1989 spring Montana Traffic Education Association/OPI Conference will be held April 30 and May 1 and 2 at the Village Red Lion Motor Inn, 100 Madison, Missoula. Walt Serba, program chairman, is planning an intensive 3-day, 2-credit workshop. Mark your calendars now and plan to participate in our annual conference.

It Has Been Said . . .

Those who use our service, *support* us. Those who compliment, *please* us. Those who constructively criticize, *teach* us how to serve better. Those who use our service and are displeased but do not let us know, *hurt* us and thus slow our growth and ability to improve our service. If you have comments, criticisms, questions, insights, etc., please let us know by calling 444-4432.

Attend a Driver Improvement Group Session

According to Mel Burchard, Great Falls Driver Examiner, traffic educators are welcome to sit in on the Driver Examiner Driver Improvement Group Sessions as observers. Contact your local examiner for information.

Avoid Intersection Accidents

One-third of all traffic accidents occur at intersections. Why? Intersections are the only place where a large number of vehicles all travel on the same patch of road but in different directions. You are also most likely to encounter pedestrians at intersections.

For varying types of intersections you need to follow different procedures. Here are some tips to help you to proceed when approaching any intersection:

—Slow down gradually.

—If you are turning, signal when you are about half a block away; when close enough to the intersection, ease into your turning lane and be sure to check your blind spots. If you are turning left, keep your wheels straight until you actually turn. If you're turning right, be sure to watch for people trying to sneak between you and the curb.

—Look first to your right, then to your left, then right again.

At a four-way stop follow these guidelines:

—Use common sense and be courteous.

—Remember, right-of-way in every situation is something that is given, not taken. you never have the right-of-way until the other guy gives it to you.

Even if an intersection has a traffic light, you need to know that machinery can malfunction.

—Never totally rely on the traffic signals, be ready to yield to other drivers

—Treat all yellow lights as red lights (Don't speed up to beat them)

—Approach green lights at a normal speed.

Watch for pedestrians and always yield if they enter your path. In addition to the pedestrians, watch for other hidden hazards. Some of these are driveways, alleys and exit and entrance ramps

Excerpted from Vol. 9, No. 2 March-April 1988 Safety Update

—Curt Hahn
Traffic Education Programs

Traffic Educator/Automobile Dealer of the Year

The OPI and the MTEA, in conjunction with the Montana Automobile Association, have initiated an annual recognition program for Montana traffic educators and automobile dealers. If you wish to nominate a teacher or dealer and do not have a form, contact Curt Hahn at 444-4432. The 1988 Traffic Educator of the Year is Ken Watson, Rudyard. The 1988 Dealer of the Year is George Fultz, Power Motors, Fort Benton.

Motor Vehicle Law Code Book

The current edition of the Montana Motor Vehicle Code Book Title 61 is available to all traffic educators at a cost of $6. Order yours from the Legislative Council, State Capitol, Room 138, Helena, Montana 59620, or call 444-3064.

Dr. Mortimer Adler is shown autographing a copy of one of his books during the Paideia Conference held in Butte last spring. Over 150 Montanans attended the conference and were introduced to Dr. Adler's method of teaching through Socratic seminars. Paideia is a Greek word meaning the general learning that all human beings should possess. The credo of Dr. Adler's Paideia Proposal is that the best education for the best is the best education for all.

RESOURCE NOTES

SOCIAL STUDIES

Do You Have an Outstanding Social Studies Program?

The National Council for the Social Studies (NCSS) will identify and recognize outstanding social studies programs being implemented in the United States. An exemplary program is defined as a currently implemented social studies program of outstanding quality based on a curricular framework consistent with the NCSS Social Studies Curriculum Guidelines. Programs must encourage articulation, balance of content, a variety of teaching strategies, and the involvement of teachers, students, and the community.

Exemplary programs will be selected from five categories: K-12 district entry, K-6 elementary entry (primary or intermediate), middle school/junior high entry, senior high entry, teacher education (district/staff development, college, university).

For more information on this program contact Ed Eschler, Social Studies Specialist, Office of Public Instruction, Helena, MT 59620, 444-4433.

VOCATIONAL EDUCATION

Important Dates

Persons interested in vocational education should mark these dates and deadlines on their calendars.

August 29—Deadline for school districts to submit the final fiscal closeout and narrative reports for fiscal year 1988 Carl D. Perkins grants

October 4—Disadvantaged Limited English Proficient (LEP) survey sent out.

October 17—Deadline for schools to return the disadvantaged and LEP survey.

October 17—Deadline for closeout and narrative reports for extended FY 1988 Carl D Perkins grants.

Week of October 17—Districts that applied for additional handicapped or disadvantaged funds should be notified if they will get an additional FY 1989 grant.

November 1—FY 1990 Carl D. Perkins Request for Proposals (RFPs) mailed to school districts.

January 20—Last day to submit FY 1990 Carl D. Perkins grant applications (RFP).

April 28—Date the FY 1990 letter of approval will be mailed.

For more information contact Jim Whealon, Director of Vocational Education, 444-2413.

MATHEMATICS

WAM Guest Speaker Available

Would you like to have a guest speaker for your mathematics students? One who would support your emphasis on the importance of mathematics to their future? One who could answer questions on math prerequisites for various careers, and one who could encourage girls as well as boys to take a maximum of mathematics and science courses in high school?

Again this fall the Women and Mathematics (WAM) program will be serving Montana. The WAM program is a lecture program started in 1975 in two regions in the United States. Statistics showed that relatively few young women were continuing their study of mathematics beyond the 9th or 10th grade, thus effectively limiting their career options and the pool of talent available in this country. The connection between this fact and the underrepresentation of women in many professional fields was only too clear. A program was developed whereby professional women could come to classrooms to provide a positive role model to both male and female students.

The program has now grown to include 16 regions. In our first year in Montana nearly 900 students and 32 teachers benefited from the visits of professional women to schools and classrooms. We were unable to meet all the school requests due to the lack of speakers in some areas. As our program grows we hope to be able to service all areas of Montana.

Glenda Tinsley and Cynthia Baumann are the Regional Coordinators for the WAM program in Montana. The Montana Council of Teachers of Mathematics has been generous with its support. Speakers for the 1988-89 school year are being recruited and the list is being mailed to the math department chairperson of each high school and junior high school. Watch for this information and share it with everyone in your school who can benefit from it

If you are interested in having a WAM speaker in your school, write to Glenda Tinsley, North Junior High School, Great Falls, MT 59404 or Cynthia Baumann, Lewistown Junior High, Lewistown, MT 59457.

Student Mathematics Needs For Future Careers

In his newest book entitled *The Rapids of Change*, Robert Theobald writes that many people would "like to return to the good old days—get back to the basics." What they do not realize is that "the good old days weren't really so good and, more importantly, that the BASICS have changed."

As an example, imagine you and/or your family driving from east to west across Montana. Stop your car at the base of any of our mountain passes, Bozeman, MacDonald, Marias, Logan, etc. Now picture yourself in a covered wagon with a team of horses in the front. No road. Look up at the mountain. Do you really want to go back to those "good old days"? By the way, **all** wagons had air conditioning.

Stuart Rosenfeld, Director of the Southern Technology Council, wrote a feature article in the June 22, 1988 **Education Week** entitled, "Educating for the Factories of the Future." In it he states that, "Schools must place more emphasis on the learning process; increased requirements in industry for mathematics, English and science suggest that schools must devote more time to these disciplines." The Council conducted a major study of manufacturing firms in the south to determine information about factors affecting changes in the workplace resulting from a shift to automation. It found that the automated workshop requires qualitatively different skills and behaviors. Supervisors reported that they no longer expect the new worker to operate specific equipment; 95 percent of specific skills are learned on the job. The "return to the basics" reflects the frustration of managers in their efforts to retrain employees to use new technologies Companies found that most workers lack necessary mathematics and scientific skills needed to be taught such things as statistical process control. Companies expect much more than **the basics**. Nearly all of those interviewed listed statistics, communication, the ability to solve problems and initiative as components of a desirable background for employees.

Rosenfeld's study points out very clearly the need for significant changes in our preparation of students to enter the business and industrial world. He and Theobald both graphically illustrate the fact that we cannot "return to the basics of old." They are no longer applicable in the world of today, much less that of tomorrow. **The basics** have changed.

Regarding a mathematics curriculum, this is not to say that we "throw the baby out with the bathwater." The fundamentals of learning basic operations is and will be as important as ever. However, the emphasis on computation with paper and pencil needs to shift to a better understanding of number and operation sense and an increased ability to use mental arithmetic and estimation. Most routine calculations, other than those that can be done mentally, must be left to the calculator. The new Curriculum and Evaluation Standards for Mathematics, published by the National Council of Teachers of Mathematics (NCTM), and the Goals for Mathematics Instruction, which will be included in the Montana School Accreditation Standards, reflect the needs expressed by business and industry.

The first four standards in the NCTM document are process in nature and impact all of the remaining specific content standards. They include problem solving, communication, reasoning, and the connection between mathematical topics, as well as the relationship of mathematics to other disciplines. The content standards in K-8 shift the emphasis from computation with whole numbers to a greater inclusion of statistics, probability, geometry, measurement and an introduction to algebra. The goals for the mathematics curriculum, as outlined in the proposed Montana Accreditation standards, call for the same form. Montana schools will be required to develop a mathematics curriculum which is consistent with these standards. Every district in Montana should have a copy of the NCTM standards and will receive the Montana goals when they are adopted by the Board this fall. The NCTM standards are undergoing a final revision now. They will be adopted by the Board of Directors in September and presented to the nation at the 67th annual conference in Orlando, Florida, in April 1989. Every individual and institutional member of NCTM will receive a copy of the standards at that time. For additional information regarding membership in NCTM so you will be sure to receive a copy of the standards, write NCTM, 1906 Association Drive, Reston, VA 22091

Captain Doug Chase (left) Missoula County Sheriff's Department and Hal Stearns, Missoula Sentinel High School teacher (right), presented programs at the Montana Law-Related Education class this summer.

RESOURCE NOTES

Mathematics Test Results From The National Assessment of Educational Progress

The National Assessment of Educational Progress (NAEP) recently released the test results from the 1986 assessment. Headlines in the July 15, 1988 issue of *Education Week* reported that "Student proficiency in math is dismal" according to NAEP. One-half of the 17-year-olds tested were unable to perform moderately complex procedures taught to high school students including such simple tasks as finding an average or interpreting graphs. Only 6 percent could solve multi-step problems. The NAEP assessment is the fourth which has been conducted since 1973 and shows some moderate improvement in student achievement in mathematics over a decade. The improvement trends, while small, are tempered by the fact that most progress is in lower order skills which reflects the back-to-the-basics movement of the mid 1970s.

Ann Kahn, former president of the National PTA, suggested that this increase in simple computational ability was related to schools' emphasis on these skills. "They have become a ceiling rather than a floor for many children," she said.

As problems became more involved and moved away from simple computation with whole numbers, performance decreased. Students had significant difficulty with the application of skills and using problem solving strategies in unfamiliar situations. To make matters even worse, the gap between what students are expected to know and what they demonstrated they know widens over time. Three-fourths of the 9-year-olds, fourth graders, could do beginning level problems, while only 21 percent showed mastery of basic problem solving skills usually taught at this level. At age 13, eighth graders, only 16 percent indicated they knew the mathematics content taught in the middle schools and could apply it in problem solving situations. By age 17, eleventh graders, less than one-half of the students appeared to have mastered even middle school mathematics skills. These last figures are even worse when one takes into account that an estimated 14 percent of the student population has dropped out of school before the eleventh grade.

Some examples of questions on the NAEP test and student achievement are as follows:

Which of the following is true about 87 percent of 10? It is greater than 10. It is less than 10. It is equal to 10. Can't tell. I don't know.

Only 51 percent of the 17-year-olds tested could answer this question.

Students were given a picture of a rectangle with the measures four centimeters on one side and six centimeters on the other.

What is the area of this rectangle? Four square centimeters, six square centimeters, 10 square centimeters, 20 square centimeters, 24 square centimeters, I don't know.

Sixteen percent of the 13-year-olds and 51 percent of the 17-year-olds correctly answered this question.

Christine borrowed $850 for one year from the Friendly Finance Co. If she paid 12 percent simple interest on the loan, what was the total amount she repaid?

Less than 1 percent of the 13-year-olds, and 6.4 percent of the 17-year-olds were able to answer this question.

John Dossey, past president of the National Council of Teachers of Mathematics stated that, "Unless society values mathematics and expects a higher level of performance among children, we have a long road to travel. Reform will not be possible until students and parents shed the mistaken notion that math is a subject that only the elite can master and until math is no longer a fiscal stepchild in the educational system."

In the next issue of *Montana Schools,* we will present additional information from the NAEP test including data on instructional practices. If you wish a complete copy of the report, "The Mathematics Report Card—Are We Measuring Up?" contact the Educational Testing Service, P.O. Box 6710, Princeton, NJ 08541-6710.

Inservice Resources Available for Math/Science Funding

Through the federal grant from Title II of the Education for Economic Security Act (EESA), commonly called the Math/Science legislation, $300,000 has been distributed to Montana districts to support staff development programs in the area of mathematics and/or science. As has been the case in the past, all funds received under this program are to be used specifically for inservice training in these two critical areas. No money from this program may be used for equipment or instructional supplies unless it is directly related to the inservice program. While over 250 application packets were sent to districts in the state, only 111 applications for funding were processed. In these days of budget constraints and lack of money to support teacher inservice, it is sad that many districts have passed up an opportunity to receive the allocation available to them.

Many staff development opportunities and resources are available for teachers in the areas of mathematics and science this year to support effective spending of these inservice dollars. For districts interested in presentation of local inservice, three National Science Foundation programs have produced an outstanding cadre of teacher-leaders available to present programs. The Excellence for Montana Mathematics Education (EMME) project has trained a group of 98 teacher-leaders to offer presentations throughout the state in the area of elementary mathematics. Over the past two years, these teachers have presented almost 400 outstanding workshops attended by nearly 7,000 Montana teachers. At the secondary level, the Integrating Mathematics Programs and Computer Technology (IMPACT) has involved 58 mathematics teachers from grades 7-12 in a training program to incorporate the use of the computer for more effective teaching of mathematics. During the first year of operation, IMPACT leaders presented 100 workshops throughout Montana attended by 1,800 teachers.

In science, the Better Elementary Science Teaching (BEST) program is now in its second year Approximately 100 elementary teachers have attended the science training programs in Billings and Missoula.

Teachers from all of these projects can present mathematics and/or science workshops in your district or region and local funds from EESA can be used to support the programs. In addition, there are some state funds available to extend the use of local funds, if needed, and/or to present regional programs involving several districts. For more information concerning the EESA funding or a list of teacher-leaders available to present mathematics and/or science workshops in your district, contact Bob Briggs, Science Specialist, 444-4439, or Dan Dolan, Mathematics Specialist, 444-4436.

Mathematics Conferences

During the 1988-89 school year, the Montana Council of Teachers of Mathematics will host two outstanding conferences in Montana to assist teachers K-university to upgrade their skills in teaching mathematics and to learn the newest innovations in mathematics curriculum. Both conferences will be held in Helena.

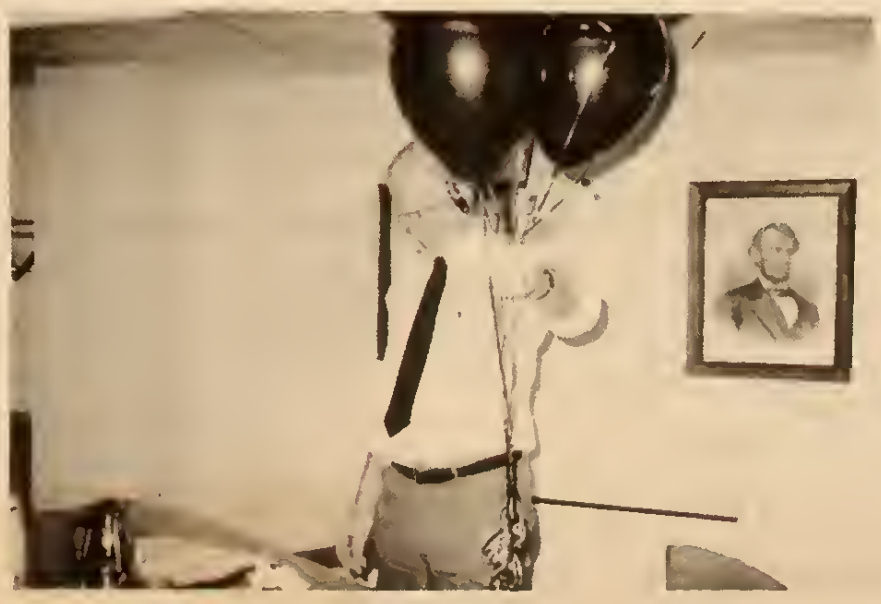
The first, the 22nd Annual MCTM State Conference, will be held October 20-21 at Helena High School. Approximately 121 sectionals and workshops on all aspects of the mathematics curriculum will be offered. Several outstanding national speakers will be featured on the program, including Lee Yunker, textbook author from Illinois; Evan Maletsky from Montclair State College in New Jersey; Lee Capps, elementary mathematics specialist from Kansas; Ross Allen from Utah, who will speak on comparisons of Japanese and American mathematics education, and Bill Stannard, one of the founders of MCTM, presently teaching at California State University in Bakersfield.

On March 2-4, 1989, MCTM will host a regional conference of the National Council of Teachers of Mathematics. Approximately 160 workshops and sectionals are planned for this northwest regional meeting of NCTM. Featured speakers will be Zal Usiskin of the University of Chicago School Mathematics Project; Kathy Richardson, noted author and elementary mathematics specialist from California, and Brendan Kelly, a middle school teacher and mathematics coordinator from Canada. Several members of the writing team for the NCTM Curriculum Standards for School Mathematics will be speaking on various segments of the NCTM standards. Nine mini-courses will be offered throughout the three days on topics from teaching geometry at the elementary level to utilizing graphing calculators and computing programs for teaching mathematics at the secondary level.

Both of these conferences are excellent ways for districts to provide inservice in the area of mathematics, and teachers may be supported to attend with EESA funds.

Special discount registration procedures are available for the NCTM conference in March whereby an entire staff at the elementary or secondary level may be registered at the conference at one-third the regular NCTM member rate. For more information on these conferences or to take advantage of the special low-cost registration program for the NCTM meeting, contact Dan Dolan, Math Specialist, 444-4436.

—Dan Dolan
Mathematics Specialist



OPI's Deputy Superintendent Ray Shackleford celebrated an auspicious birthday recently and was surprised with black balloons and a weeping rendition of Happy Birthday.

CALENDAR

The following is a selection of professional enrichment opportunities and other events of interest to school personnel. For information about specific listings, address inquiries to the contact person noted.

"EDvents," a complete calendar of events, is available on OPI's electronic bulletin board accessed by computer at 444-3481.

SEPTEMBER

Sept. 15-16—Conference: *State Superintendent's Conference*, Helena. Myrna Omholt, OPI, 444-3654.

Sept. 21—Conference: *Vocational Education Conference*, Great Falls. Jim Fitzpatrick, Office of Higher Education, 444-2962.

Sept. 23—Native American Day. Bob Parsley, OPI, 444-3013.

Sept. 23—*Statewide Caucus on Arts Education*, WMC. Janet Athwal, OPI, 444-4442.

Sept. 25-28—Conference: *Third National Conference on Educational Technology*, Charlotte, NC. Ron Lukenbill, OPI, 444-2080.

Sept. 26—National Good Neighbor Day.

Sept. 28-30—Conference: *14th Annual Chapter 1 Fall Conference*, Billings. Nancy Coopersmith, OPI, 444-4420.

OCTOBER

October—*Computer Learning Month*. Dan Dolan, OPI, 444-4436.

Oct. 10-12—Conference: *TeleCon VIII*, Anaheim, CA. Ron Lukenbill, OPI, 444-2080.

Oct. 12-14—Conference: *9th Annual Montana Conference on Developmental Disabilities*, Butte. Ted Spas, Dept. of SRS, 444-5647.

Oct. 13-15—Conference: *Northwest Regional Talented and Gifted Conference*, Springfield, OR. Nora Cohen, OTAG.

Oct. 20-21—Convention: *MEA Instruction and Professional Development Convention*, Mary Sterhan, MEA, 442-4250.

Oct. 20-22—Conference: *Mountain Plains Library Association*, Omaha, NE. Margy Rolando, OPI 444-2979.

Oct. 20-21—Convention: *MSBA/SAM/MASBO Annual Convention*, Billings. Bob Anderson, School Boards Assn., 442-2180.

Oct. 20-21—Meeting: *Montana Music Educators Association Meeting*, Great Falls. Janet Athwal, OPI, 444-4442.

Oct. 20-21—Meeting: *Montana Art Education Association Meeting*, Helena. Janet Athwal, OPI, 444-4442.

Oct. 21—Meeting: *Teaching Geography*, Helena. Ron Lukenbill, OPI, 444-2080.

NOVEMBER

Nov. 1—Pioneer Day.

Nov. 7-11—Conference: *National Association for Gifted Children National Conference*, Orlando, FL. OPI, 444-4422.

Nov. 12—Meeting: *Montana Alliance for Arts Education Annual Meeting*, Great Falls. Janet Athwal, OPI, 444-4442.

How do you get library inventory done in one night? Well, Helena's Broadwater School Librarian Susan Watne thought of a way. She asked Mary Ellen Hull's 4th grade class, along with three chaperones, to come eat, sleep and take inventory one night before summer vacation. Shelves were assigned to check books for cards, rips, and tears. The work got done and everyone had fun.

—by Patrick Burns
Broadwater School
(Shown in foreground, picture at right)

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